



시험 성적서

TEST REPORT

페이지(page) : (1) / (총(Total) 33)

성적서 번호 Report No.		ICRT-TR-E212450-0A	
신청자 Client	기관명 Name	Whoborn Inc.	
	주 소 Address	20, Omok-ro 24-gil, Yangcheon-gu, Seoul	
시험대상품목 Sample description		MRH(Mixed Reality Headset)	
모델명 Type designation		MRH-100	
정 격 Ratings		DC 3.7 V	
시험장소 Place of test		☒ 고정시험(Inside test) ☐ 현장시험(Field test) 주소지(Address): 112, Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea	
시험기간 Date of test		7. Aug. 2021 ~ 10. Aug. 2021	
시험방법/항목 Test Method/Item		FCC Part 15 Subpart C §15.247	
시험결과 Test Results		Refer to 3. Test Summary	
확 인 Affirmation	작성자 Tested by	기술책임자 Technical Manager	
	성 명 Name Yeong-Hwan, Hong (Signature)	성 명 Name Min-Gi, Son (Signature)	
☐ 위 성적서는 고객이 제공한 시료에 대한 시험결과 입니다. This is certified that the above mentioned products have been tested for the sample. ☐ 위 성적서는 KS Q ISO/IEC 17025 및 한국인정기구(KOLAS)인정과 관련이 없습니다. The above test report is not related to accreditation by KS Q ISO/IEC 17025 and Korea Laboratory Accreditation scheme. ☐ 위 성적서는 식품의약품안전처 '식품의약품분야 시험·검사 등에 관한 법률'과 관련이 없습니다. The above test report is not related to accreditation by MFDS 'Act on Testing and Inspection in The Food and Drug Industry'. ☐ 위 성적서는 주식회사 아이씨알의 승인 없이는 일부 복제에 대해 금지됩니다. The test report is prohibited for some reproduction without the approval of the ICR.			
2021.10.14 주식회사 아이씨알 대표이사 The head of INTERNATIONAL CERTIFICATION REGISTRAR 			

본 성적서의 진위 확인은 G4B 혹은 ICR 홈페이지에서 가능합니다.

The authenticity of the test report can be checked on the G4B or ICR website.

경기도 김포시 양촌읍 황금3로7번길 112 / Tel: 02-6351-9001 ~ 6



Contents

1. Applicant & Manufacturer & Test Laboratory Information	4
1.1 Applicant information.....	4
1.2 Manufacturer Information	4
1.3 Test Laboratory Information	4
2. Equipment under Test(EUT) Information	5
2.1 General Information.....	5
2.2 Additional Information	5
2.3 Mode of operation during the test	5
2.4 Modifications of EUT	5
3. Test Summary	6
3.1 Test standards and results	6
3.2 Purpose of the test	6
3.3 Test Methodology	6
3.4 Configuration of Test System.....	6
3.5 Antenna requirement.....	7
4. Used equipment on test	8
5. 6 dB Bandwidth	9
5.1 Operating environment	9
5.2 Measurement method	9
5.3 Test setup	9
5.4 Test data	10
6. Maximum Conducted Output Power	12
6.1 Operating environment	12
6.2 Measurement method	12
6.3 Test setup	12
6.4 Test data	13
7. Power Spectral Density	15
7.1 Operating environment	15
7.2 Measurement method	15
7.3 Test setup	15
7.4 Test data	16
8. Conducted Spurious Emission	18
8.1 Operating environment	18
8.2 Measurement method	18
8.3 Test setup	18
8.4 Test data	19
9. Radiated Spurious Emission	24
9.1 Operating environment	24
9.2 Measurement method	24
9.3 Test setup	24
9.4 Test data	26



페이지(page) : (3)/(총(Total) 33)

Revision History

Issued Report No.	Issued Date	Revisions	Effect Section
ICRT-TR-E212450-0A	14-Oct-2021	Initial Issue	All



1. Applicant & Manufacturer & Test Laboratory Information

1.1 Applicant information

Applicant	Whoborn Inc.
Address	20, Omok-ro 24-gil, Yangcheon-gu, Seoul
Contact Person	Youngsik Bae
Telephone No.	+82-10-6319-6090
Fax No.	+82-2-2694-6090
E-mail	manager@whoborn.net

1.2 Manufacturer Information

Manufacturer	Whoborn Inc.
Address	20, Omok-ro 24-gil, Yangcheon-gu, Seoul

1.3 Test Laboratory Information

Conducted tests were performed at	
Laboratory	ICR Co., Ltd.
Address	112, Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea
Telephone No.	+82-2-6351-9002
Fax No.	+82-2-6351-9007
RRA No.	KR0165
KOLAS No.	KT652
Test Firm Registration Number	490614



2. Equipment under Test(EUT) Information

2.1 General Information

Product Name	MRH(Mixed Reality Headset)
Brand Name	-
Model Name	MRH-100
Additional Model Name	-
FCC ID	2A3G5MRH-100
Hardware Version	1.0
Software Version	1.0
Power Supply	DC 3.7 V
EUT Serial Number	Test 1

2.2 Additional Information

Equipment Class	DTS-Digital Transmission System	
Device Type	Stand-alone	
Operating Frequency	2 402 MHz ~ 2 480 MHz	
RF Output Power	4.05 dBm	
Number of Channel	40	
Modulation Type	GFSK	
Antenna Type	PCB Antenna / Chip Antenna	
Antenna Gain	PCB Antenna	-6.04 dBi
	Chip Antenna	0.5 dBi
Antenna Operating Mode	Single device with two antennas (The two antennas operate in a diversity method)	
List of Each Oscillator or Crystal Frequency	24 MHz	

2.3 Mode of operation during the test

- The EUT is continuous transmission mode during the test with set at Low Channel, Middle Channel, and High Channel. To get a maximum radiated emission levels from the EUT, the EUT was moved throughout the XY, YZ, XZ planes.

2.4 Modifications of EUT

- None

2.5 Reason of Additional Model Name

Additional model name	Differential point
MRH-100	The reason is simple model name addition.



3. Test Summary

3.1 Test standards and results

FCC Part 15 Subpart C			
Clause	Test items	Applied	Results
§15.247 (a) (2)	6 dB Bandwidth	☒	PASS
§15.247 (b) (3)	Maximum Conducted Output Power	☒	PASS
§15.247 (e)	Power Spectral Density	☒	PASS
§15.247 (d)	Conducted Spurious Emission	☒	PASS
§15.247 (d) & §15.209 & §15.205	Radiated Spurious Emission	☒	PASS
§15.207	Power Line Conducted Emission	☒	PASS
§15.203	Antenna Requirement	☒	PASS

3.2 Purpose of the test

- To determine whether the equipment under test fulfills the requirements of the standards stated in FCC Part 15 Subpart C Section 15.247.

3.3 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10: 2013.

Radiated testing was performed at a distance of 3 m from EUT to the antenna.

3.4 Configuration of Test System

3.4.1 Radiated emission test

Preliminary radiated emissions test were conducted using the procedure in ANSI C63.10: 2013 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 m Semi Anechoic Chamber. The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

3.4.2 AC power line conducted emission test

The EUT was connected to LISN. All supporting equipment were connected to another LISN. Preliminary Power line Conducted Emission test was performed by using the procedure in ANSI C63.10: 2013 to determine the worse operating conditions.



3.5 Antenna requirement

According to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section.

The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

And according to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi.

Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.5.1 Result: Pass

The transmitter has a **Chip Antenna**. The directional gain of the antenna is **0.5 dBi**.

The transmitter has a **PCB Antenna**. The directional gain of the antenna is **-6.04 dBi**.



4. Used equipment on test

	Description	Model Name	Serial Number	Manufacturer	Next Cal. (cycle)
☒	Spectrum analyzer	FSW85	101306	Rohde & Schwarz	2022. 03. 22 (1Y)
☒	Spectrum analyzer	FSV40	101455	Rohde & Schwarz	2022 .06. 16 (1Y)
☒	Signal Generator	SMB100A	180607	Rohde & Schwarz	2022. 03. 03 (1Y)
☒	DC Power Supply	XDL 35-5P	J00385373	Sorensen	2022. 03. 02 (1Y)
☒	Loop Antenna	HFH2-Z2	100506	Rohde & Schwarz	2023. 07. 05 (2Y)
☒	TRILOG BROADBAND ANTENNA	VULB9162	120	SCHWARZBECK	2022. 12. 15 (2Y)
☒	RF Pre Amplifier	SCU08	100747	Rohde & Schwarz	2022. 04. 14 (1Y)
☒	DOUBLE-RIDGE WAVEGUIDE HORN ANTENNA	HF907	102556	Rohde & Schwarz	2022. 08. 21 (2Y)
☒	RF Pre Amplifier	SCU18	102342	Rohde & Schwarz	2022. 04. 14 (1Y)
☒	Horn Antenna	LB-42-10-C-KF	J202024625	AINFO Inc.	2022. 03. 04 (2Y)
☒	RF Pre Amplifier	AMF-4F-18265-35-8P-1	771846	MITEQ	2022. 03. 04 (1Y)
☒	Horn Antenna	LB-28-10-C-KF	J202024627	AINFO Inc.	2022. 03. 04 (2Y)
☒	RF Pre Amplifier	AMF-4D-260400-45-6P	779919	MITEQ	2022. 03. 04 (1Y)
☒	EMI Test Receiver	ESR26	101461	Rohde & Schwarz	2022. 04. 14 (1Y)
☒	EMI Test Receiver	ESR26	101462	Rohde & Schwarz	2022. 04. 14 (1Y)
☒	LISN	ENV216	102194	Rohde & Schwarz	2022. 04. 14 (1Y)
☒	EMI Test Receiver	ESR3	102119	Rohde & Schwarz	2022. 04. 14 (1Y)

※ All test equipment used is calibration on a regular basis.



5. 6 dB Bandwidth

5.1 Operating environment

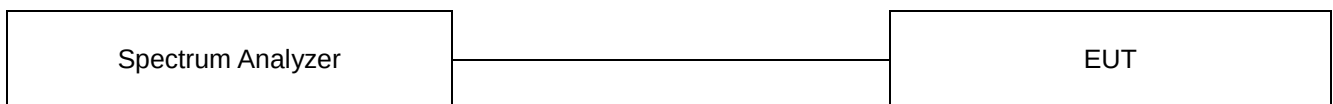
Temperature : 23 °C
Relative humidity : 47 %

5.2 Measurement method

Standard : §15.247 (a) (2)

5.3 Test setup

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz, and peak detection was used. The 6 dB bandwidth is defined as the total spectrum over which the power is higher than the peak power minus 6 dB.





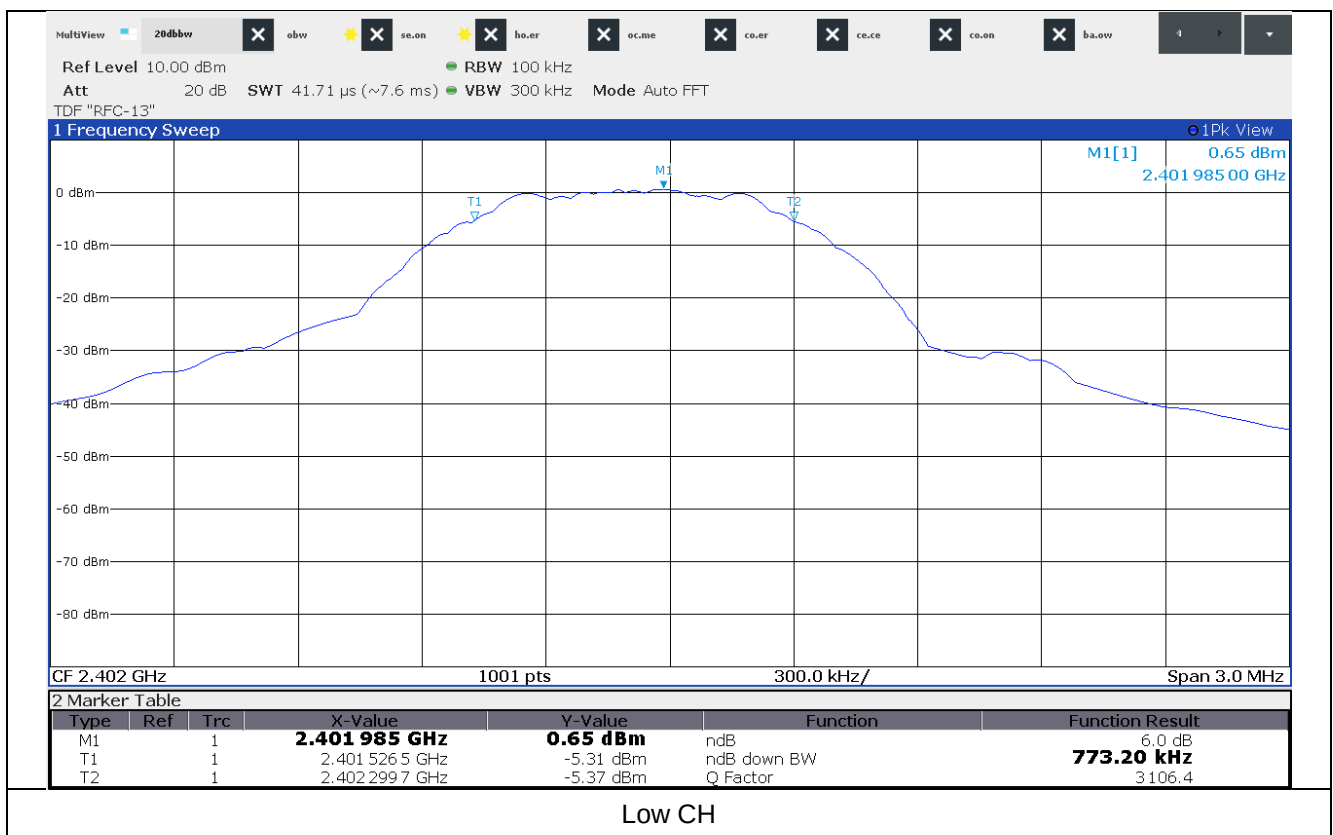
5.4 Test data

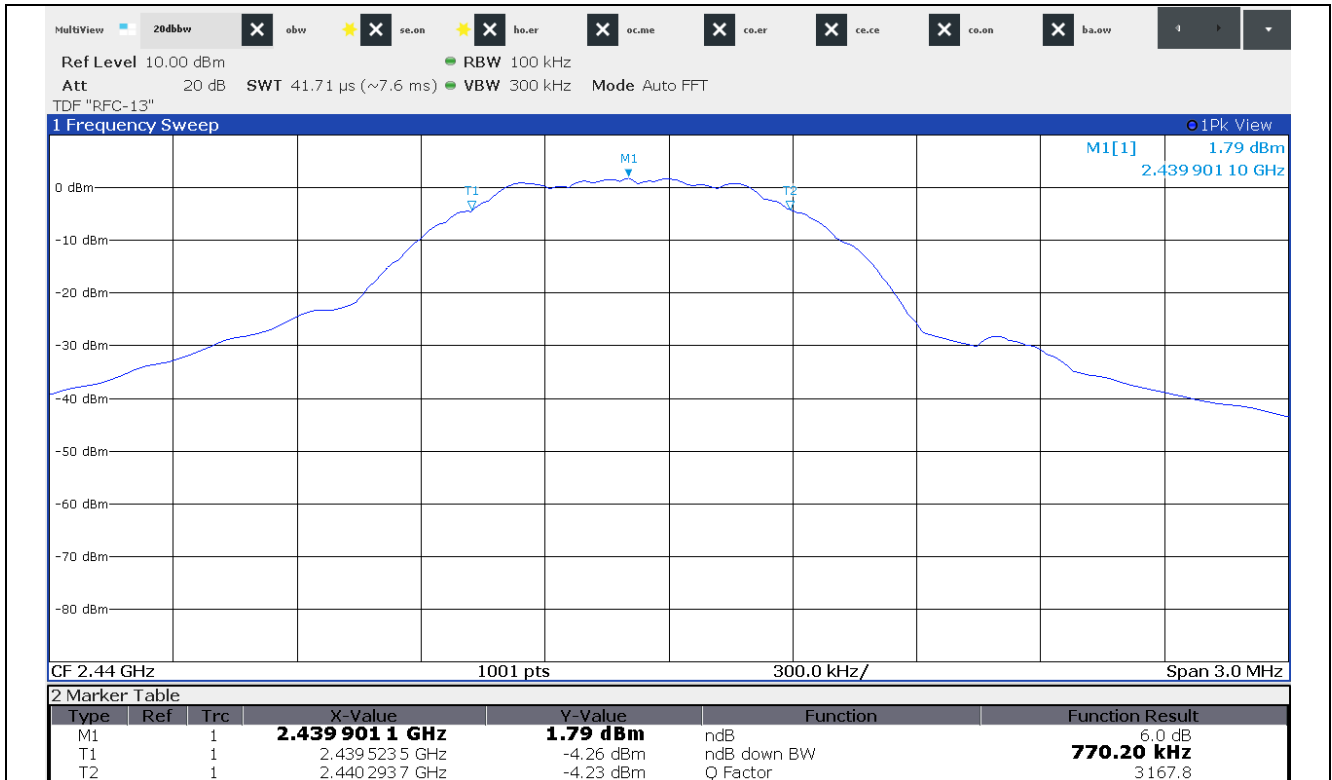
Test date : 07. Aug. 2021
 Operating mode : Transmit mode
 Test Result : Pass

5.4.1 Measured Results

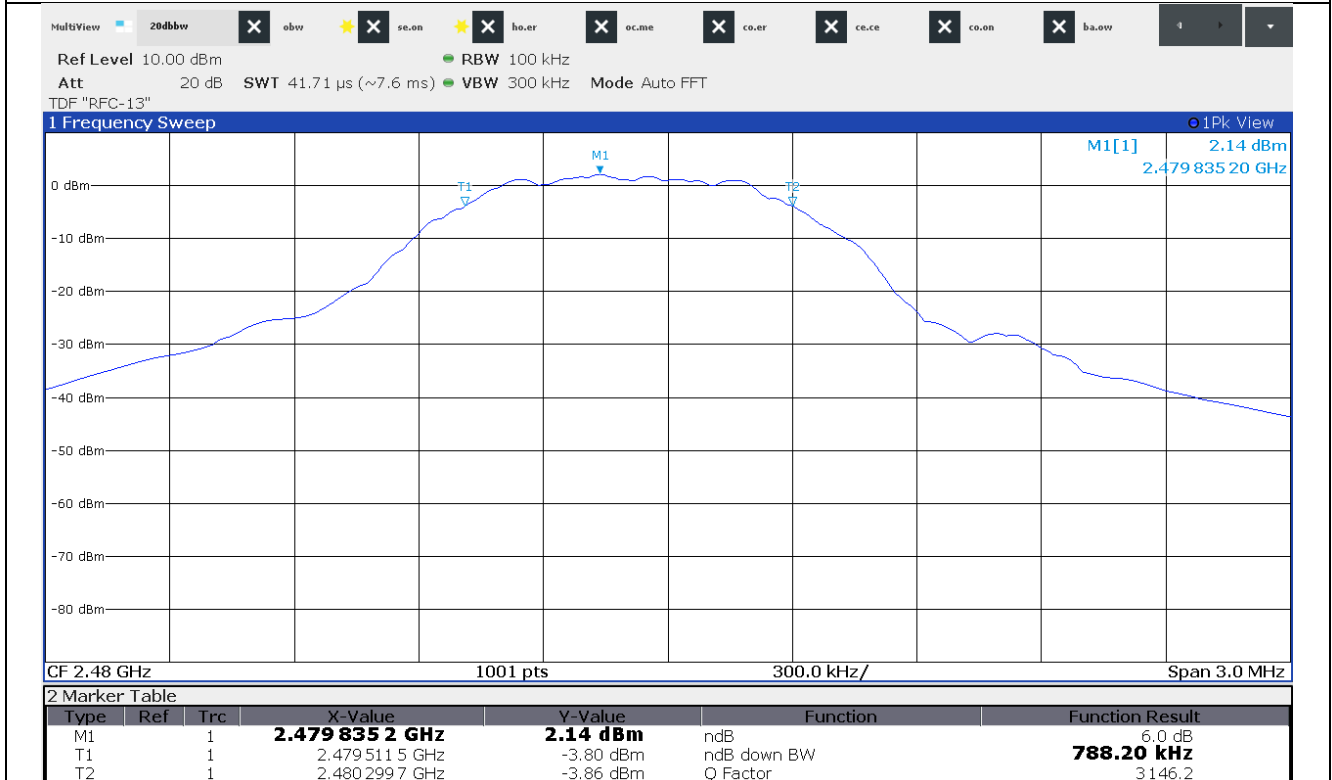
Modulation Type	Channel (Frequency)	Measured Value (kHz)	Limit (kHz)
Bluetooth LE	0 (2 402 MHz)	773.2	at least 500
	19 (2 440 MHz)	770.2	
	39 (2 480 MHz)	788.2	

5.4.2 Measured Graph (6 dB Bandwidth)





Mid CH



High CH



6. Maximum Conducted Output Power

6.1 Operating environment

Temperature : 23 °C

Relative humidity : 47 %

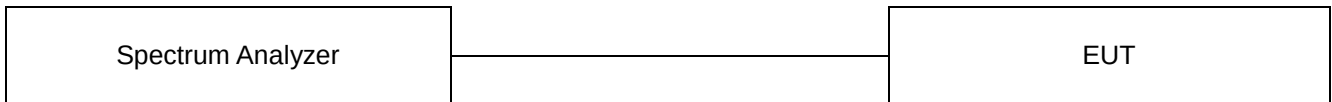
6.2 Measurement method

Standard : §15.247 (b) (3)

6.3 Test setup

The maximum peak output power was measured with the spectrum analyzer connected to the antenna output of the EUT. The spectrum analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 99 % bandwidth. The EUT was operating in transmit mode at the appropriate center frequency.

And e.i.r.p. is added antenna maximum gain with the Maximum Conducted Output Power.





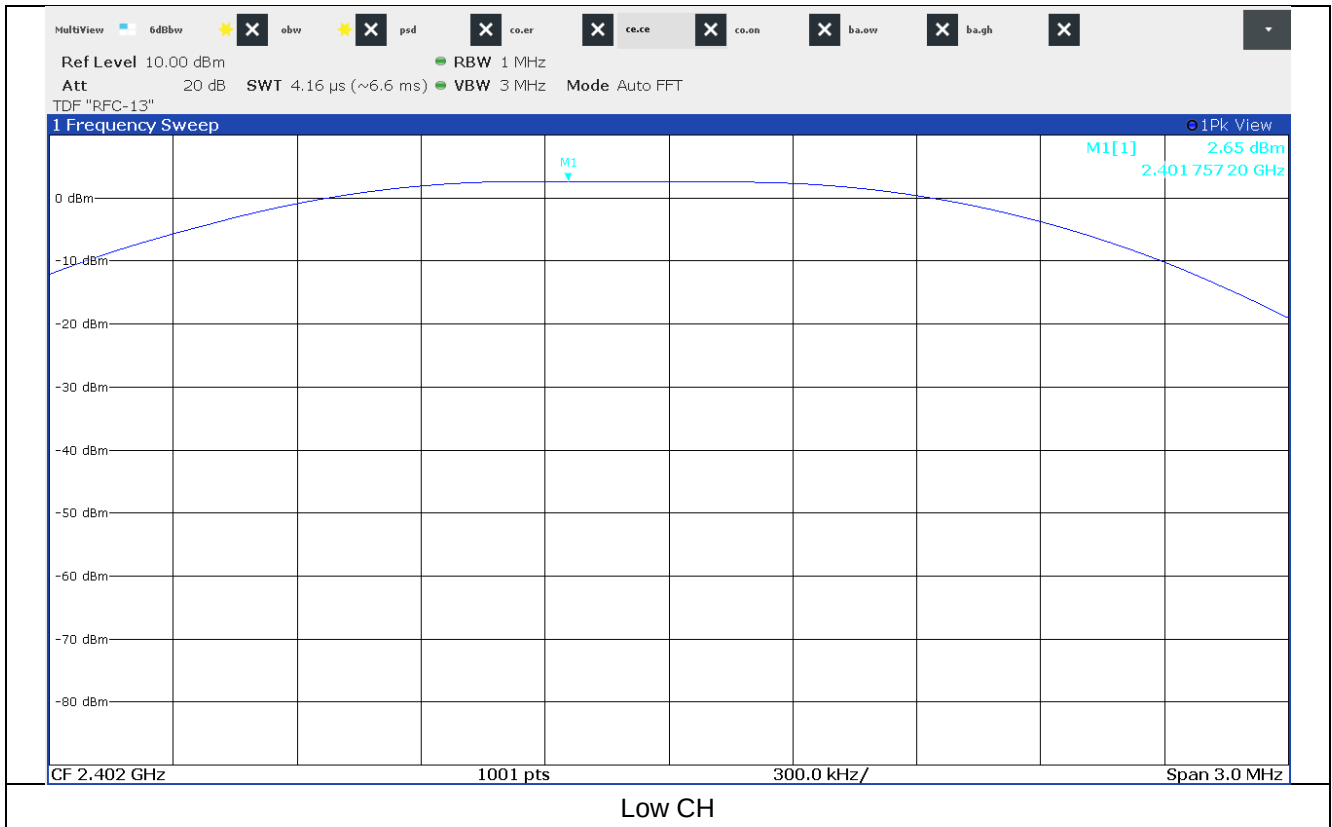
6.4 Test data

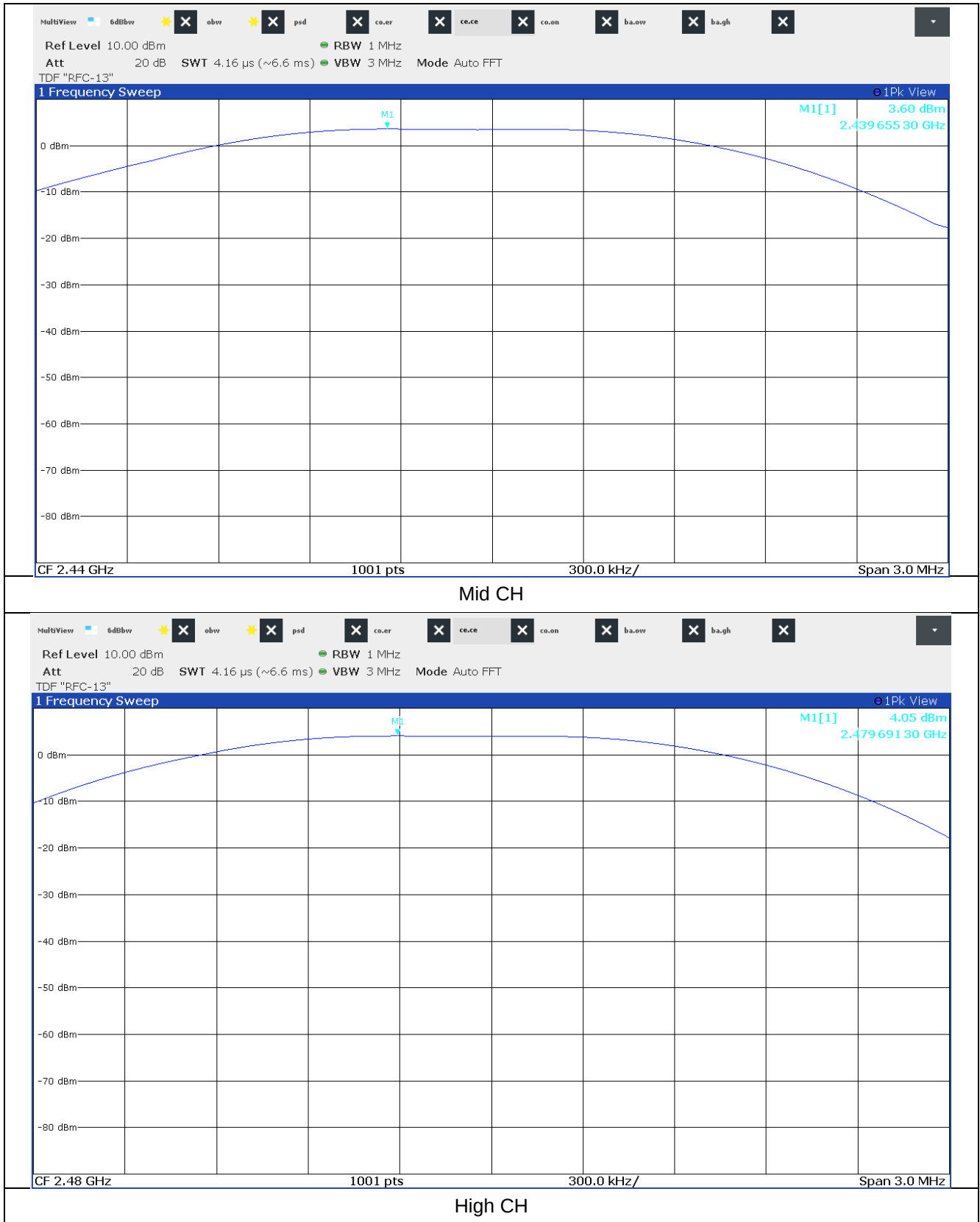
Test date : 07. Aug. 2021
Operating mode : Transmit mode
Test Result : Pass

6.4.1 Measured Results

Modulation Type	Channel (Frequency)	Highest signal level (dBm)	Limit (dBm)
Bluetooth LE	0 (2 402 MHz)	2.65	30 (1 Watt)
	19 (2 440 MHz)	3.60	
	39 (2 480 MHz)	4.05	

6.4.2 Measured Graph







7. Power Spectral Density

7.1 Operating environment

Temperature : 23 °C

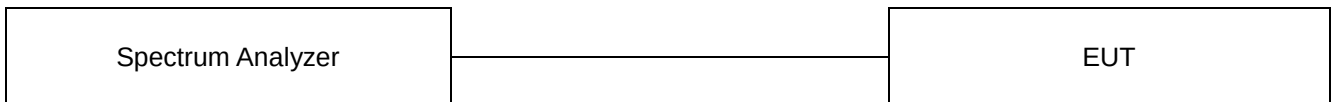
Relative humidity : 47 %

7.2 Measurement method

Standard : §15.247 (e)

7.3 Test setup

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 3 kHz, the video bandwidth is set to 3 times the resolution bandwidth.





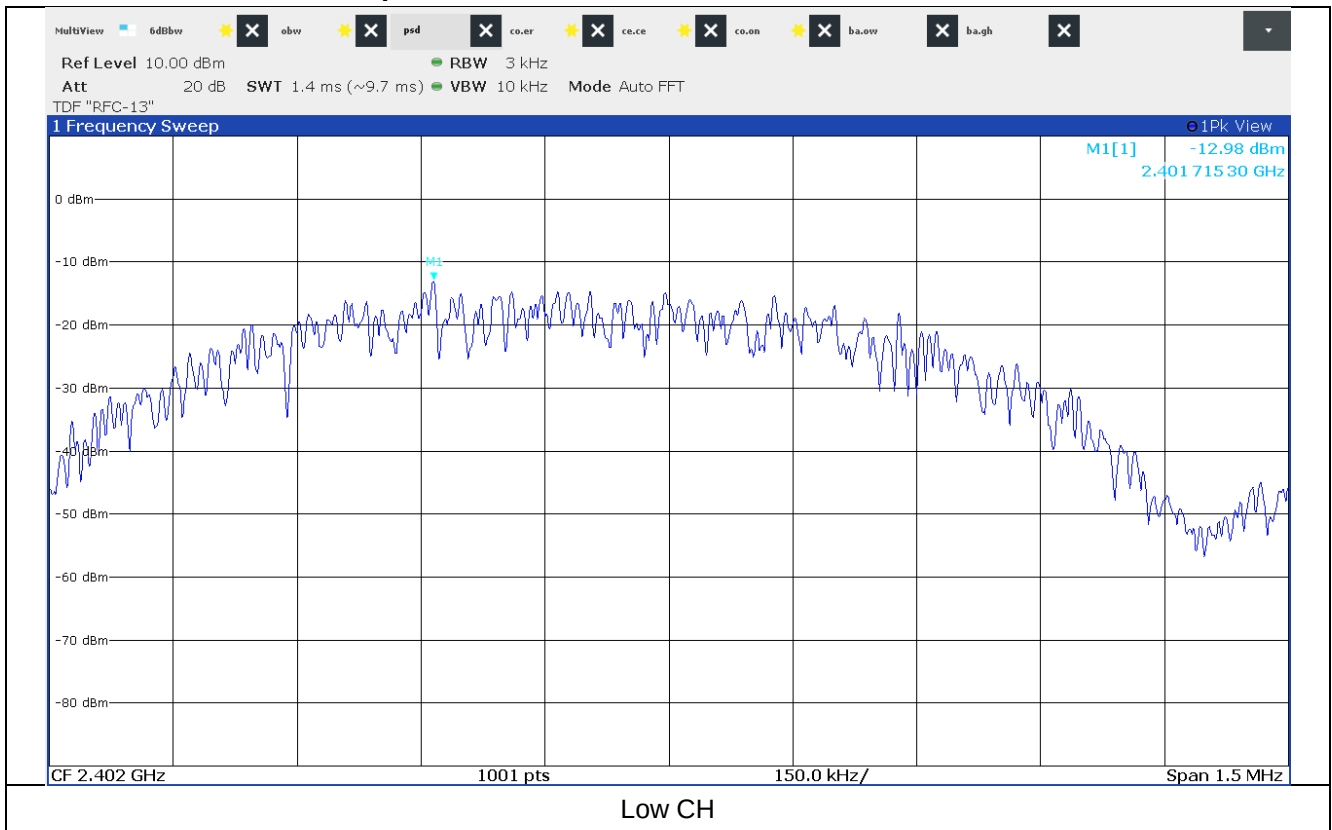
7.4 Test data

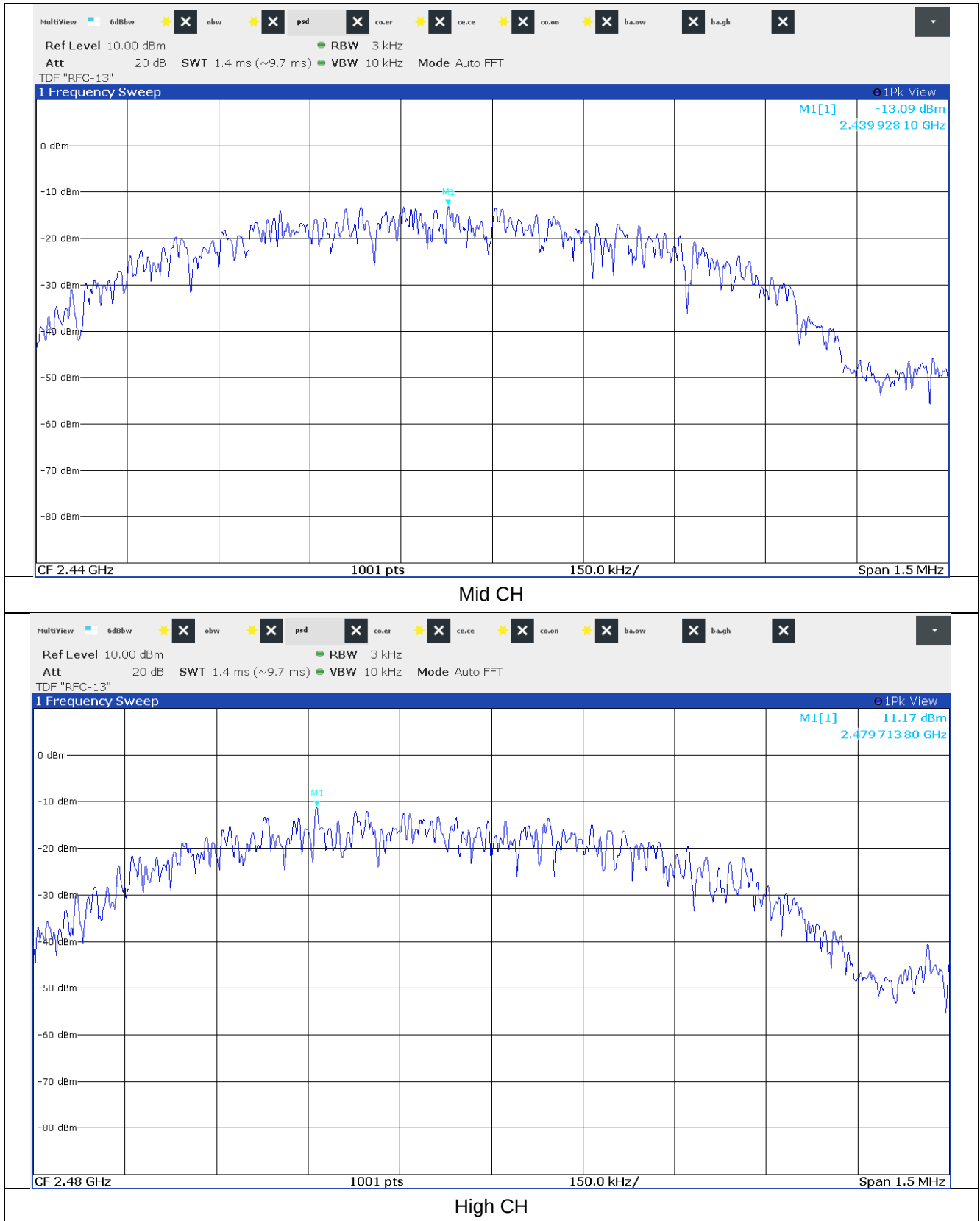
Test date : 07. Aug. 2021
Operating mode : Transmit mode
Test Result : Pass

7.4.1 Measured Results

Modulation Type	Channel (Frequency)	Highest signal level (dBm)	Limit (dBm/3kHz)
Bluetooth LE	0 (2 402 MHz)	-12.98	8
	19 (2 440 MHz)	-13.09	
	39 (2 480 MHz)	-11.17	

7.4.2 Measured Graph







8. Conducted Spurious Emission

8.1 Operating environment

Temperature : 23 °C

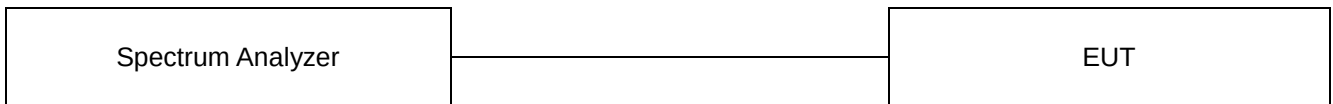
Relative humidity : 47 %

8.2 Measurement method

Standard : §15.247 (d)

8.3 Test setup

The antenna output of the EUT was connected to the spectrum analyzer. The resolution and video bandwidth is set to 100 kHz, and peak detection was used.



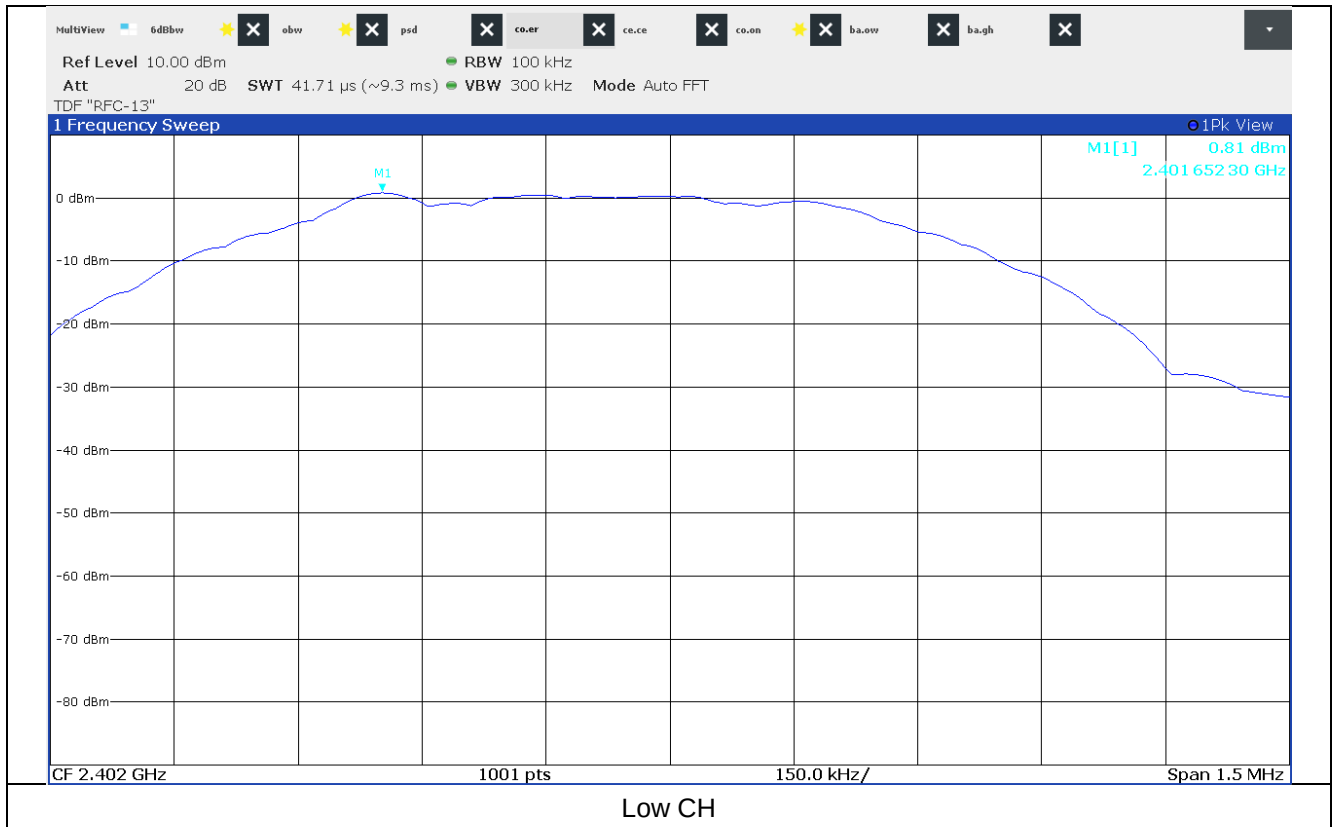


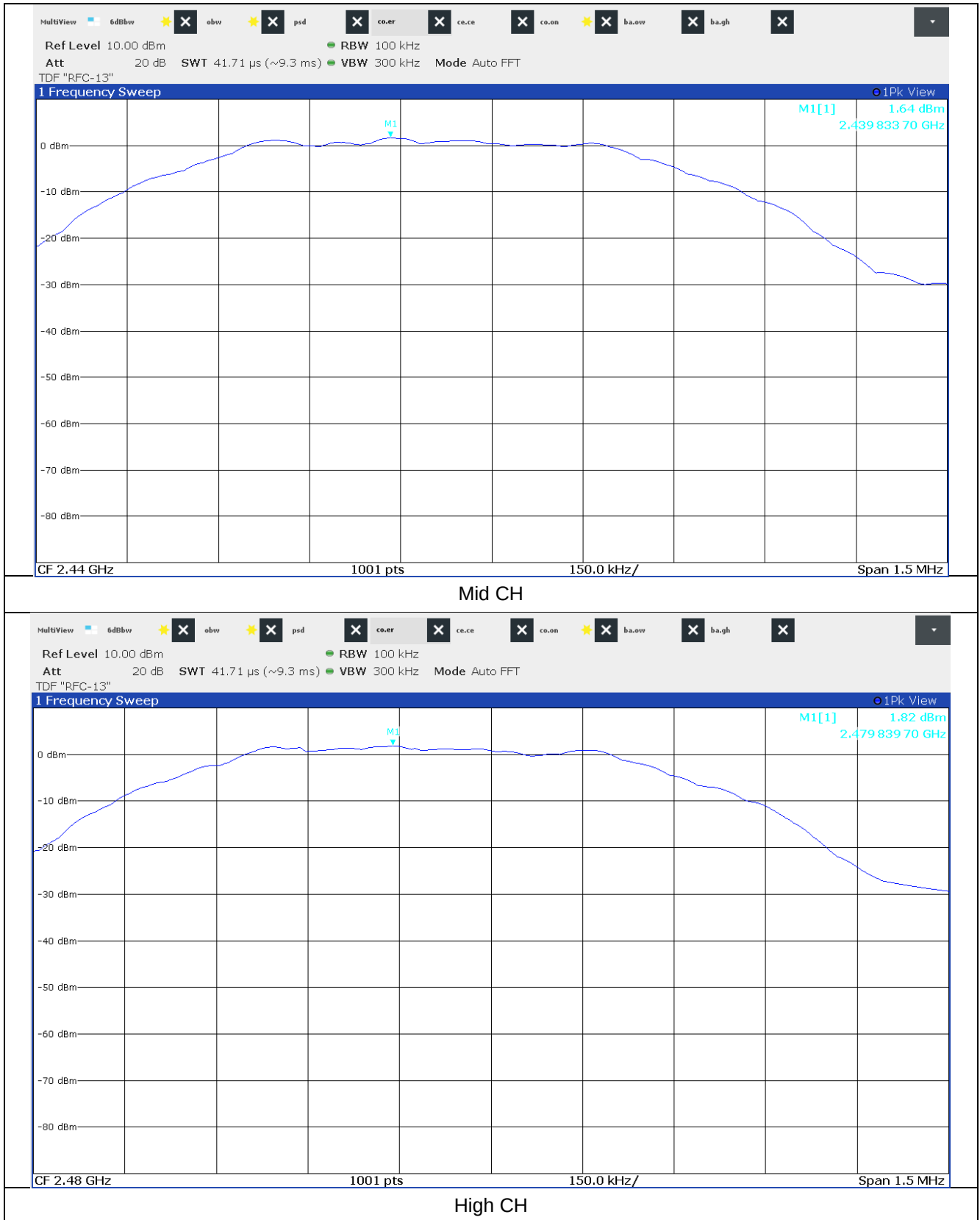
8.4 Test data

Test date : 07. Aug. 2021
Operating mode : Transmit mode
Test Result : Pass

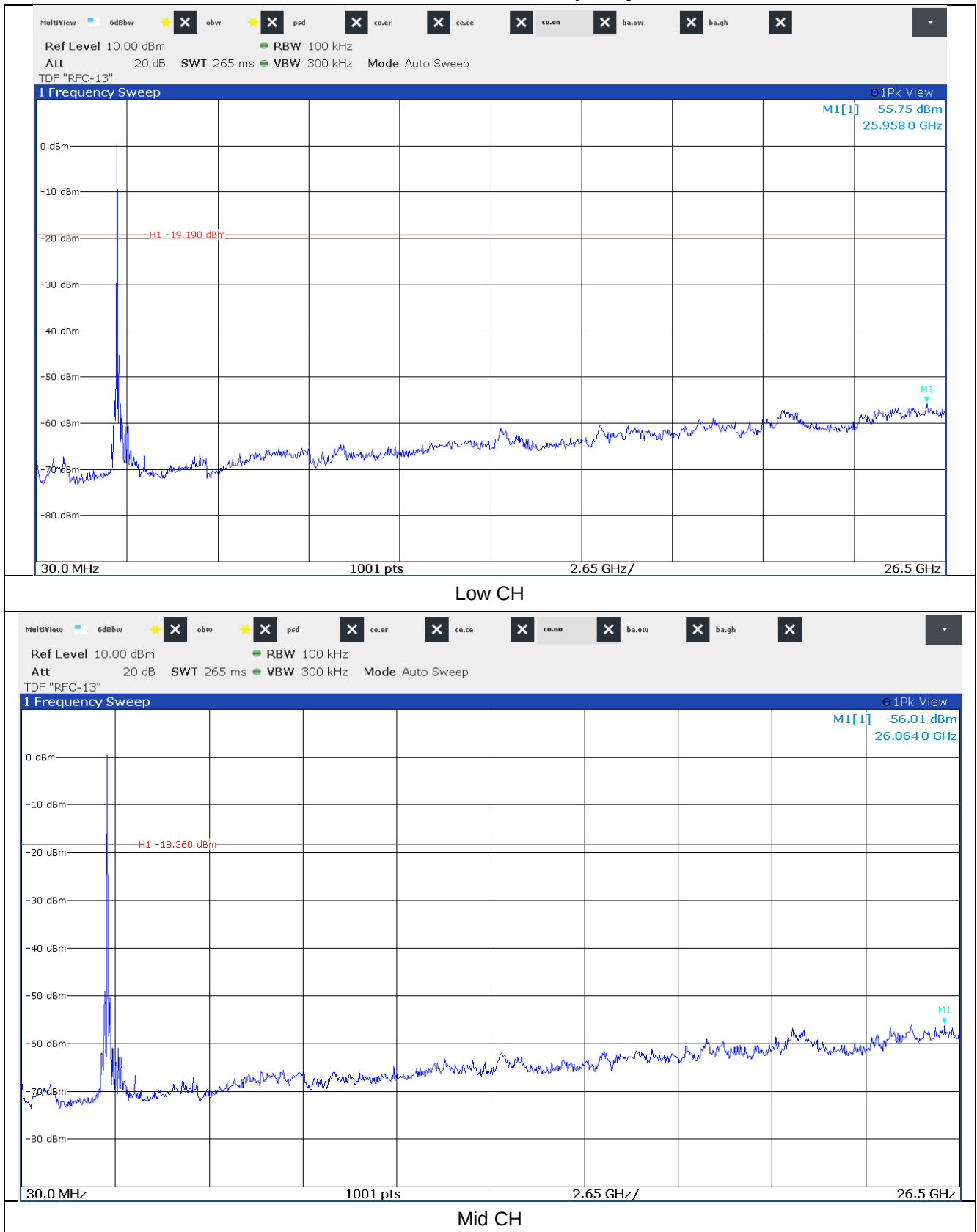
8.4.1 Measured Results

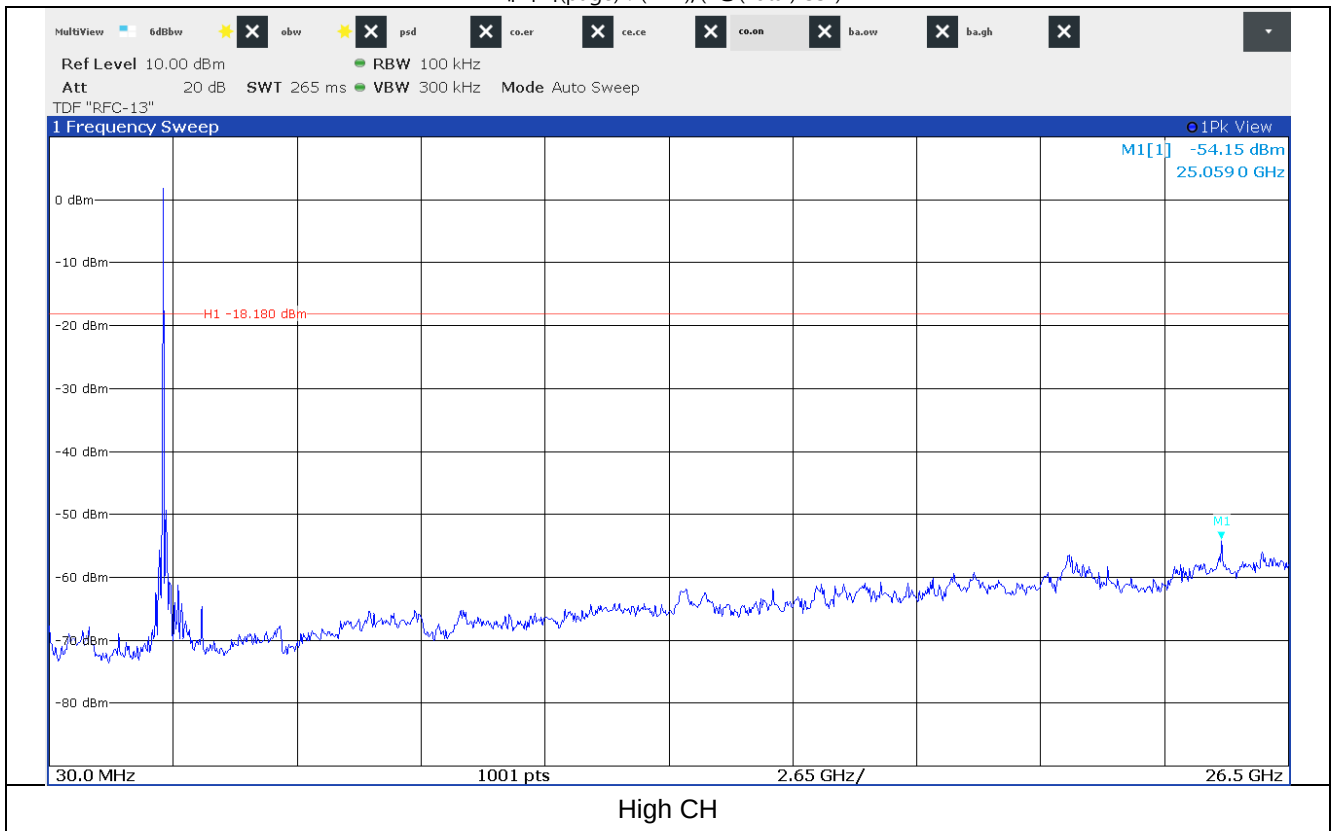
8.4.1.1 Signal level (dB m)





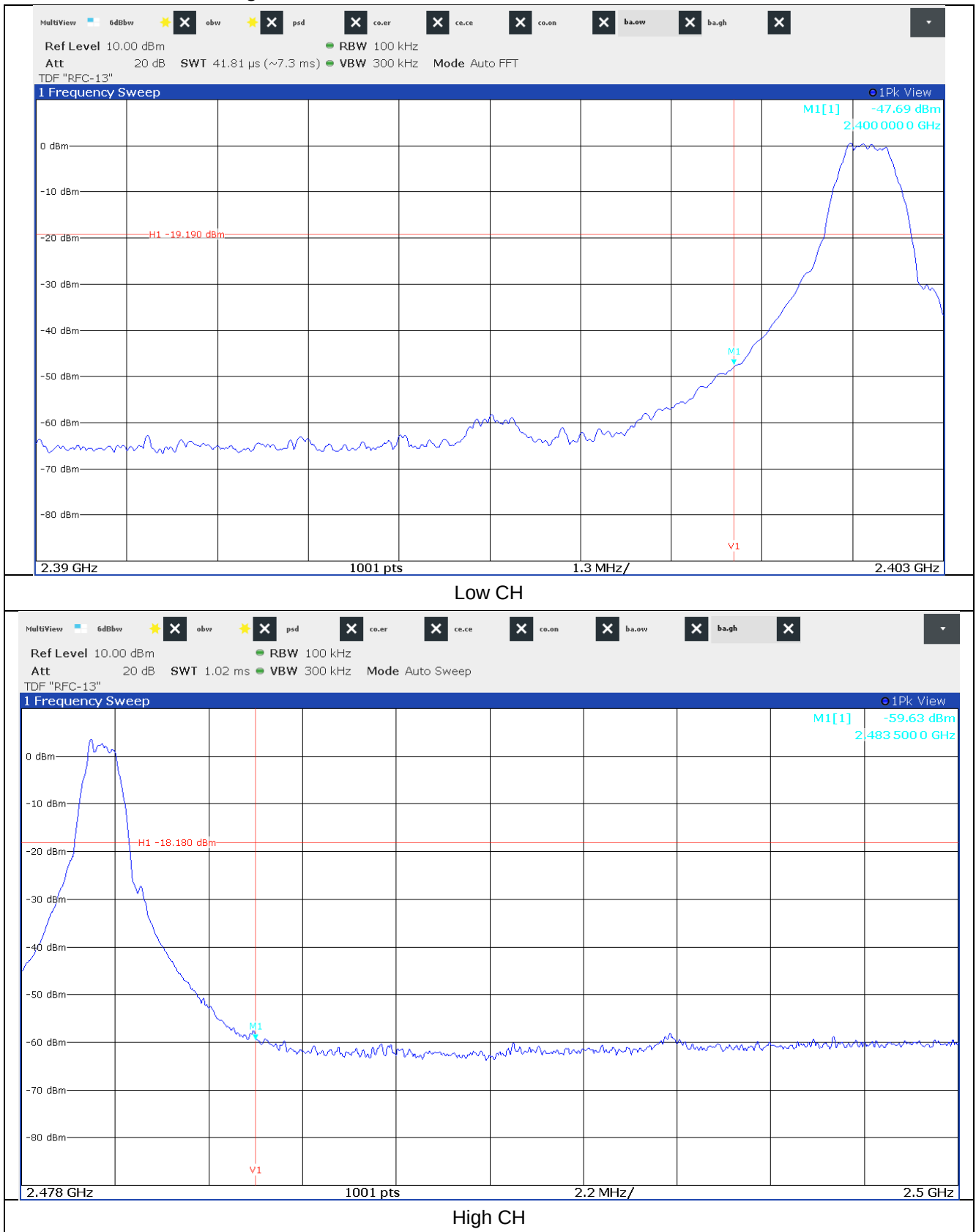
8.4.1.2 Unwanted Emissions In Non-Restricted Frequency Bands







8.4.1.3 Band Edge



9. Radiated Spurious Emission

9.1 Operating environment

Temperature : 24 °C

Relative humidity : 48 %

9.2 Measurement method

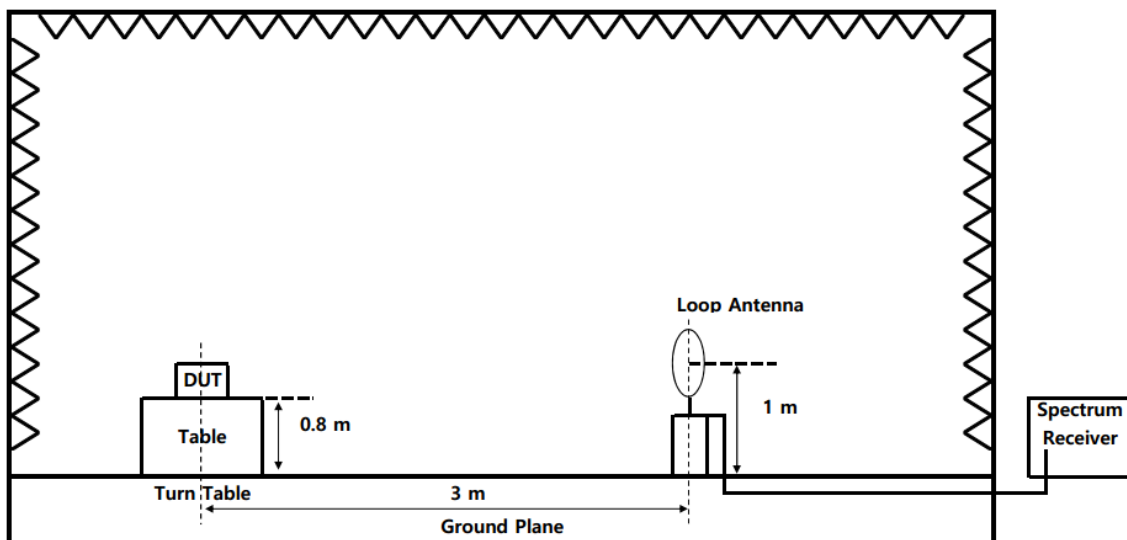
Standard : §15.247 (d), §15.209, §15.205

9.3 Test setup

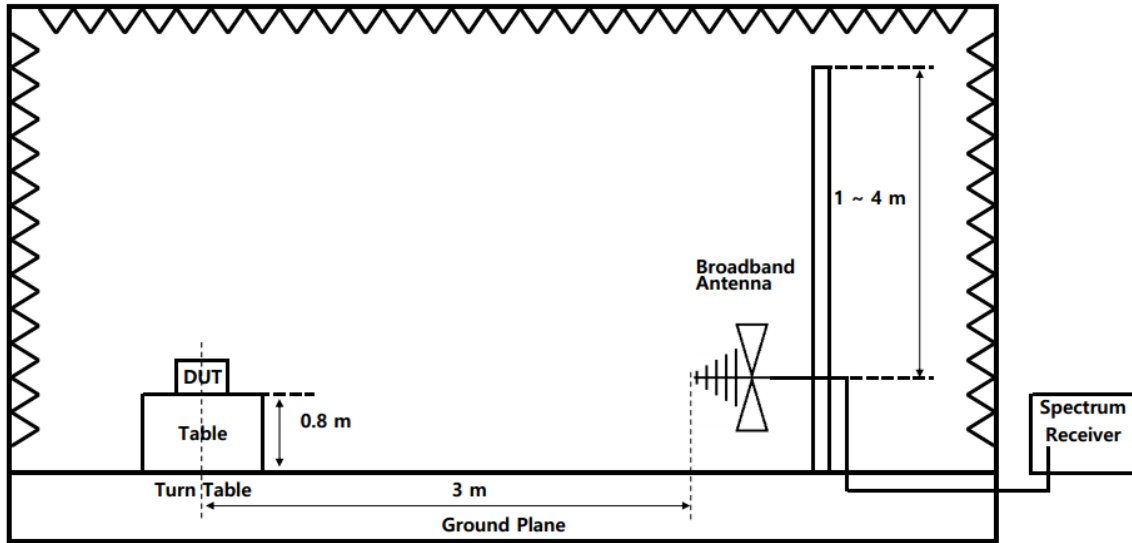
The radiated emissions measurements were performed on the 3 m, Semi-Anechoic Chamber. The EUT was placed on a non-conductive turntable above the ground plane.

The frequency spectrum from 9 kHz to 26.5 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

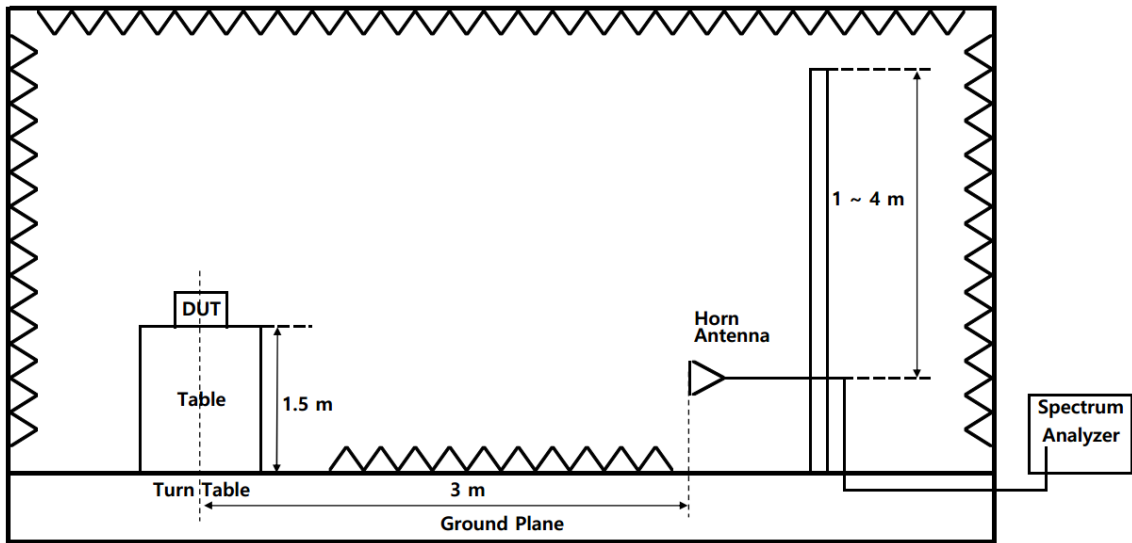
9.3.1 Below 30 MHz



9.3.2 30 MHz to 1 GHz



9.3.3 Above 1 GHz



**9.4 Test data**

Test date : 10. Aug. 2021
 Operating mode : Transmit mode
 Test Result : Pass

9.4.1 Test data for Restricted band

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
2399.95	58.16	Peak	H	-13.10	45.06	73.98	28.92
	34.78	Average	H		21.68	53.98	32.30
High CH							
2495.53	49.73	Peak	H	-12.50	37.23	73.98	36.75
	33.69	Average	H		21.19	53.98	32.79

※ Ant. Pol. : Antenna Polarization

※ Corr. Factor. : Antenna Factor + Cable Loss - Amplifier Gain

※ Result = Reading + Corr. Factor

※ Margin = Limit - Result

9.4.2 Test data for Spurious & Harmonic**9.4.2.1 Measurement Results for below 30 MHz**

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
It was not found any emissions peaks found from the EUT.							
Mid CH							
It was not found any emissions peaks found from the EUT.							
High CH							
It was not found any emissions peaks found from the EUT.							

※ Ant. Pol. : Antenna Polarization

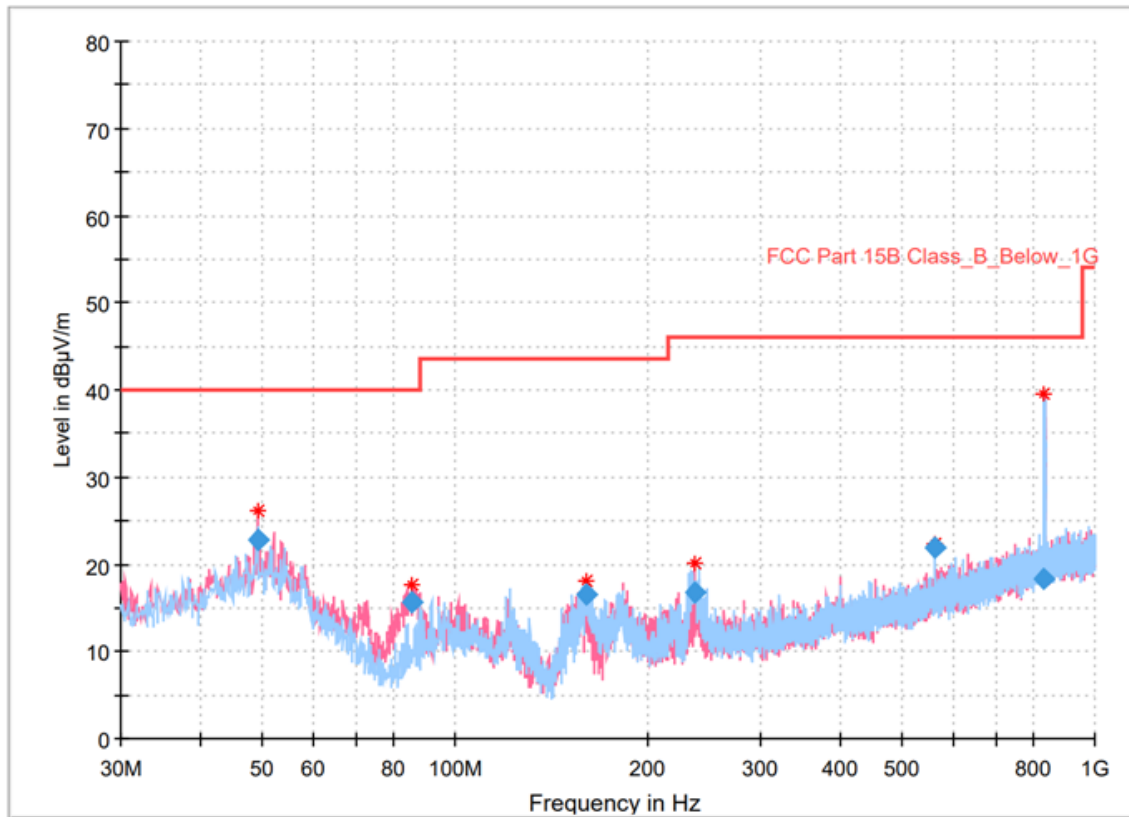
※ Corr. Factor. : Antenna Factor + Cable Loss - Amplifier Gain

※ Result = Reading + Corr. Factor

※ Margin = Limit - Result



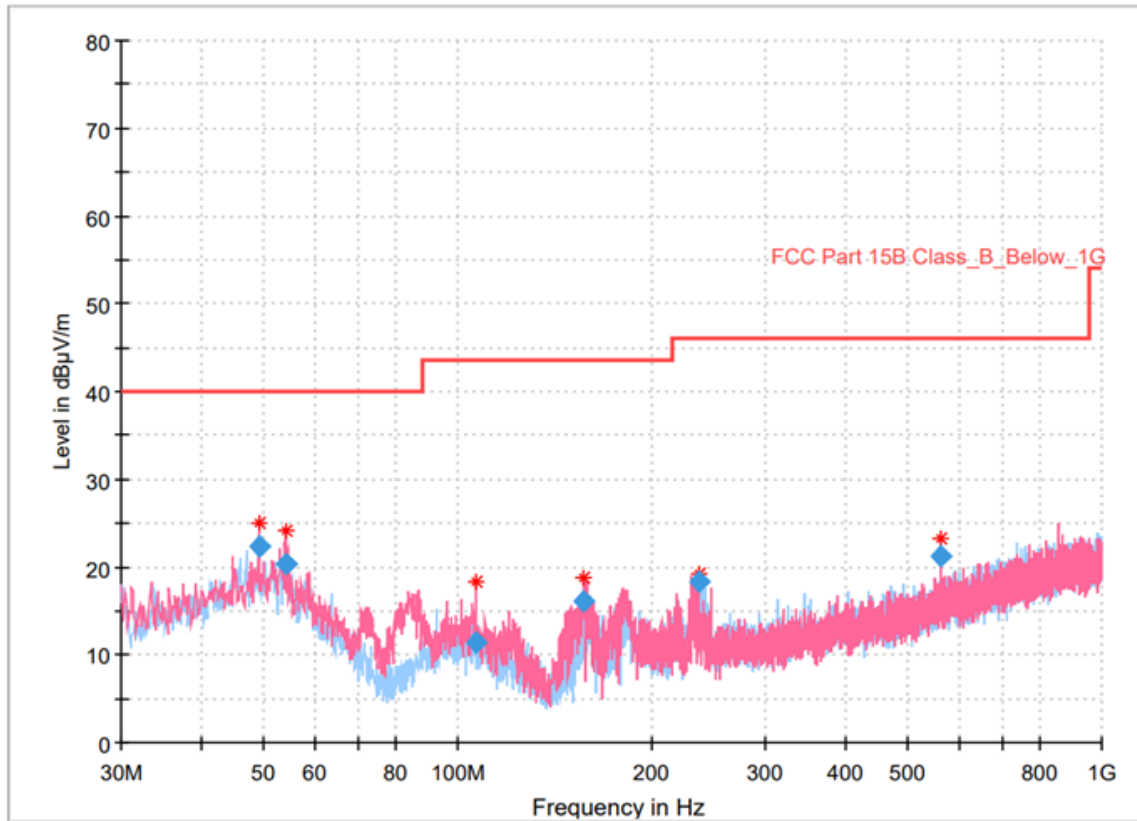
9.4.2.2 Measurement Results for below 1 GHz



Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
49.109000	22.69	40.00	17.31	1000.0	120.000	100.0	V	48.0	-19.1
85.775000	15.62	40.00	24.38	1000.0	120.000	100.0	V	104.0	-24.1
159.883000	16.60	43.50	26.90	1000.0	120.000	200.0	H	301.0	-23.8
237.095000	16.82	46.00	29.18	1000.0	120.000	100.0	V	48.0	-19.9
562.530000	21.91	46.00	24.09	1000.0	120.000	100.0	V	104.0	-12.1
833.257000	18.26	46.00	27.74	1000.0	120.000	100.0	H	25.0	-8.3

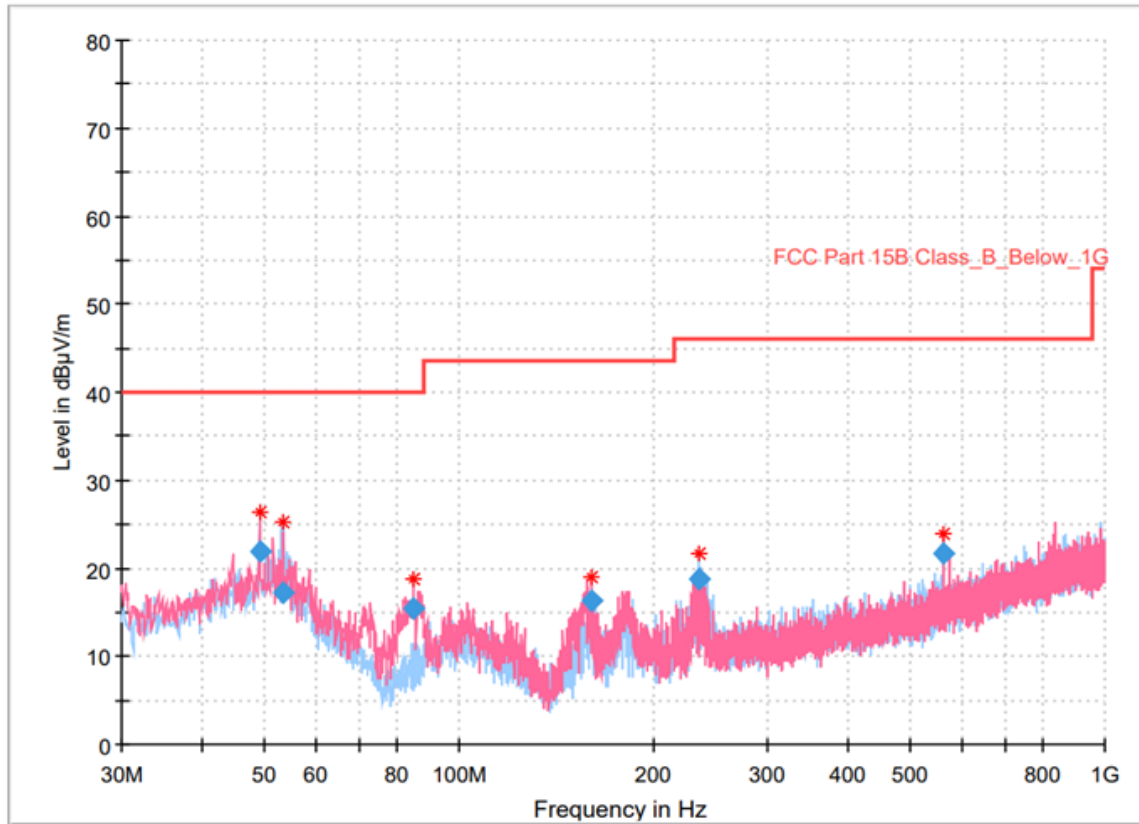
Low CH



Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
49.109000	22.40	40.00	17.60	1000.0	120.000	100.0	V	198.0	-19.1
53.959000	20.26	40.00	19.74	1000.0	120.000	100.0	V	74.0	-19.4
106.824000	11.45	43.50	32.05	1000.0	120.000	100.0	V	46.0	-20.8
157.264000	16.00	43.50	27.50	1000.0	120.000	100.0	V	60.0	-24.0
237.386000	18.26	46.00	27.74	1000.0	120.000	100.0	H	313.0	-19.9
562.530000	21.24	46.00	24.76	1000.0	120.000	100.0	H	124.0	-12.1

Mid CH



Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
49.109000	22.00	40.00	18.00	1000.0	120.000	100.0	H	292.0	-19.1
53.183000	17.16	40.00	22.84	1000.0	120.000	100.0	H	100.0	-19.2
84.902000	15.43	40.00	24.57	1000.0	120.000	100.0	V	108.0	-24.4
160.077000	16.41	43.50	27.09	1000.0	120.000	100.0	V	54.0	-23.8
234.573000	18.86	46.00	27.14	1000.0	120.000	100.0	H	319.0	-19.9
562.530000	21.73	46.00	24.27	1000.0	120.000	100.0	V	68.0	-12.1

High CH



9.4.2.3 Measurement Results for Above 1 GHz

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
4803.38	47.67	Peak	V	-4.70	42.97	73.98	31.01
	35.85	Average	V		31.15	53.98	22.83
7206.22	44.62	Peak	V	-1.50	43.12	73.98	30.86
	32.01	Average	V		30.51	53.98	23.47
Mid CH							
4879.65	45.46	Peak	V	-4.30	41.16	73.98	32.82
	33.65	Average	V		29.35	53.98	24.63
7323.09	45.02	Peak	H	-1.30	43.72	73.98	30.26
	32.22	Average	H		30.92	53.98	23.06
High CH							
4959.30	48.30	Peak	V	-4.10	44.20	73.98	29.78
	36.95	Average	V		32.85	53.98	21.13
7396.10	45.13	Peak	H	-1.20	43.93	73.98	30.05
	32.25	Average	H		31.05	53.98	22.93

※ Ant. Pol. : Antenna Polarization

※ Corr. Factor. : Antenna Factor + Cable Loss - Amplifier Gain

※ Result = Reading + Corr. Factor

※ Margin = Limit – Result



10. Power Line Conducted Emission

10.1 Operating environment

Temperature : 24 °C

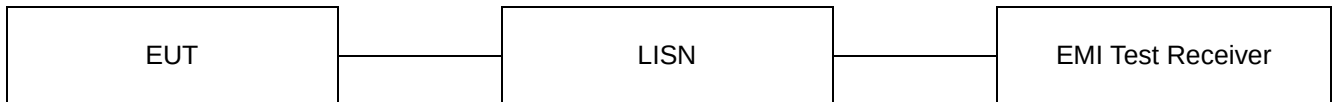
Relative humidity : 43 %

10.2 Measurement method

Standard : §15.207

10.3 Test setup

The EUT was placed on a wooden table, 0.8 m height above the floor. Power was fed to the EUT through a $50\ \Omega$ / $50\ \mu\text{H}$ + $5\ \Omega$ Artificial Mains Network (AMN). The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.

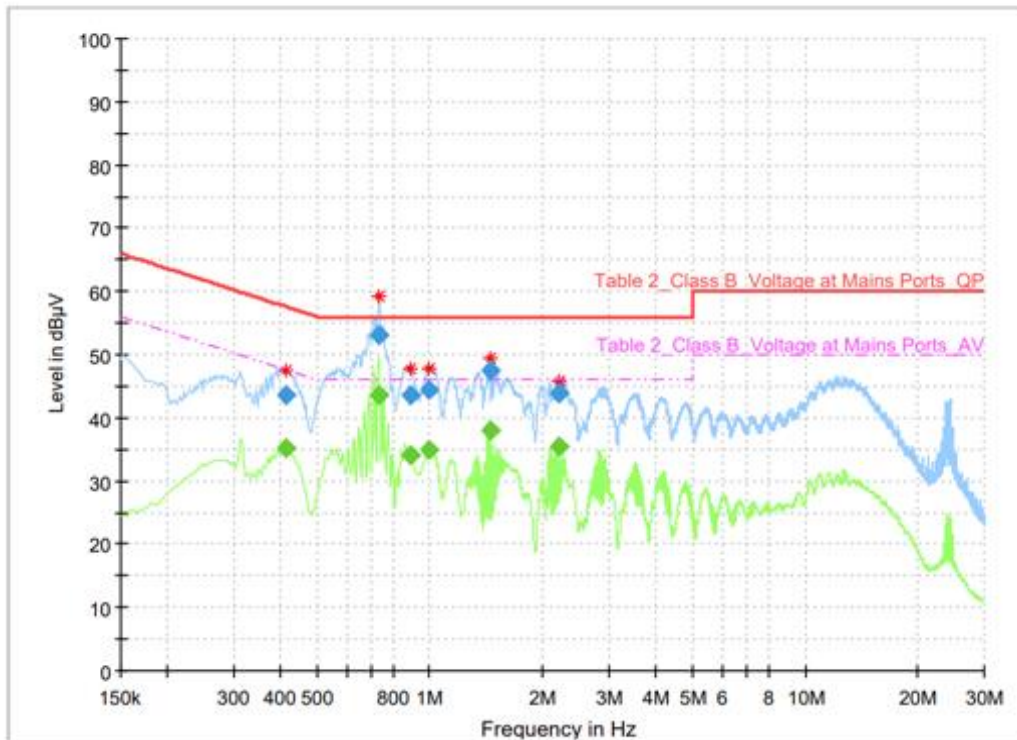




10.4 Test data

Test date : 10. Aug. 2021
 Operating mode : Transmit mode
 Test Result : Pass

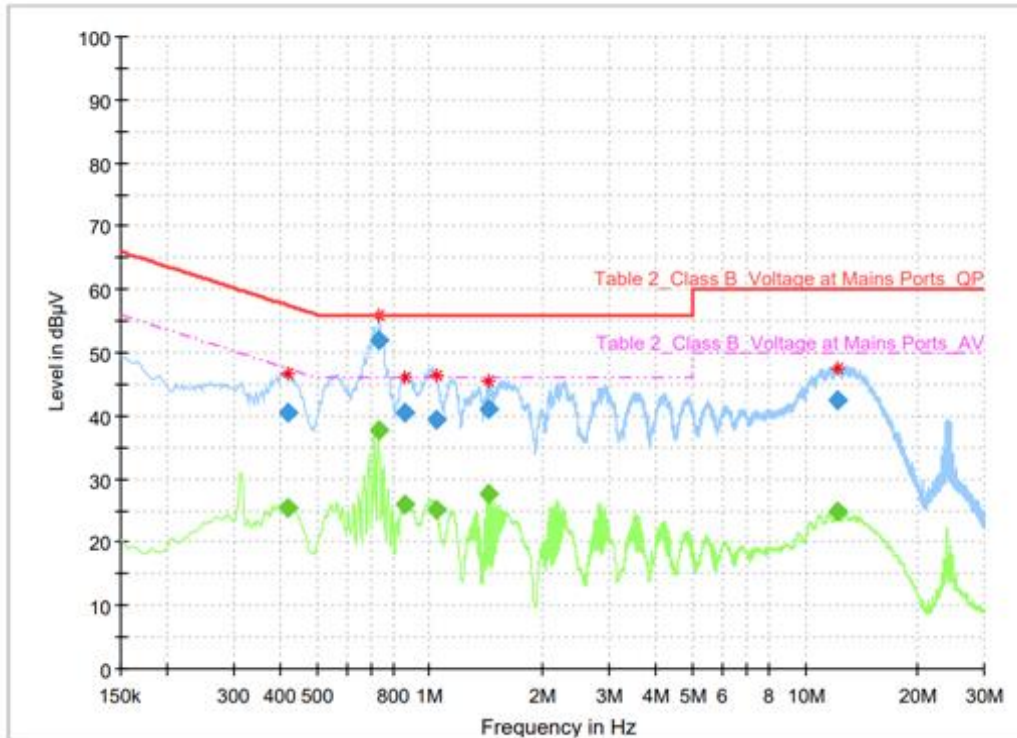
10.4.1 Measured Results & Graph



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.413250	43.60	---	57.58	13.98	5000.0	9.000	L1	ON	9.9
0.413250	---	35.22	47.58	12.36	5000.0	9.000	L1	ON	9.9
0.732750	52.99	---	56.00	3.01	5000.0	9.000	L1	ON	9.8
0.732750	---	43.44	46.00	2.56	5000.0	9.000	L1	ON	9.8
0.888000	43.57	---	56.00	12.43	5000.0	9.000	L1	ON	9.8
0.888000	---	34.18	46.00	11.82	5000.0	9.000	L1	ON	9.8
0.996000	44.29	---	56.00	11.71	5000.0	9.000	L1	ON	9.8
0.996000	---	35.03	46.00	10.97	5000.0	9.000	L1	ON	9.8
1.441500	47.38	---	56.00	8.62	5000.0	9.000	L1	ON	9.7
1.441500	---	37.87	46.00	8.13	5000.0	9.000	L1	ON	9.7
2.195250	43.73	---	56.00	12.27	5000.0	9.000	L1	ON	9.7
2.195250	---	35.51	46.00	10.49	5000.0	9.000	L1	ON	9.7

Live line



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.417750	40.40	---	57.49	17.09	5000.0	9.000	N	ON	9.9
0.417750	---	25.50	47.49	21.99	5000.0	9.000	N	ON	9.9
0.732750	51.96	---	56.00	4.04	5000.0	9.000	N	ON	9.8
0.732750	---	37.82	46.00	8.18	5000.0	9.000	N	ON	9.8
0.854250	40.62	---	56.00	15.38	5000.0	9.000	N	ON	9.8
0.854250	---	26.05	46.00	19.95	5000.0	9.000	N	ON	9.8
1.041000	39.44	---	56.00	16.56	5000.0	9.000	N	ON	9.8
1.041000	---	25.07	46.00	20.93	5000.0	9.000	N	ON	9.8
1.439250	41.11	---	56.00	14.89	5000.0	9.000	N	ON	9.7
1.439250	---	27.67	46.00	18.33	5000.0	9.000	N	ON	9.7
12.174000	42.34	---	60.00	17.66	5000.0	9.000	N	ON	9.8
12.174000	---	24.76	50.00	25.24	5000.0	9.000	N	ON	9.8

Neutral line

- END OF REPORT.